

information. The updated control information is fed back to selected network elements to thereby affect operation of the selected elements. Additionally the adaptive, feedback-based network of the present invention may include a network quality monitoring system for evaluating performance characteristics or other aspects of the network based upon predetermined standards or criteria.

**In the Claims:**

Please cancel claims 7-9, and 20-39 and substitute the following clean claims 1-6, 10, 15, 16, 18, and 19 for any previous corresponding claims. Additionally, please add the following new claims 20-39. A marked up version of the claims is present in the attached Appendix.

SUB 18' > 1. (Amended Once) A method for providing dynamic feedback control of network elements in a data network, the data network including a plurality of network elements, each of said network elements having a plurality operating parameters associated therewith, said operating parameters being related to at least one control parameter of said element, said method comprising:

A receiving information relating to characteristics associated with a first subset of the plurality of network elements;

providing at least a portion of said received information to at least one analysis entity for analyzing said portion of received data; and

providing updated control information to at least one of the network elements, wherein the updated control information is in response to the received information and specifies a limit on the operation of the at least one network element.

SUB 18' > 2. (Amended Once) The method of claim 1, wherein the updated control information is a committed information rate value.

3. (Amended Once) The method of claim 1 wherein the updated control information is an excess information rate value.

4. (Amended Once) The method of claim 1 wherein said analysis entity is a policy engine operable to analyze said portion of said information based upon selected guidelines to determine whether a performance of at least a portion of said network conforms with predetermined criteria.

5. (Amended Once) The method of claim 1 wherein the updated control information is a committed burst size value.

CONT  
A1  
6. (Amended Once) The method of claim 1 wherein the updated control information is an excess burst size value.

A2 SUB B1  
10. (Amended Once) The method of claim 1 wherein the control data is provided to a second subset of the plurality of network elements in response to the information.

SUB B1  
A3  
15. (Amended Once) The method of claim 10 wherein the second subset of network elements comprises the first subset of network elements.

16. (Amended Once) The method of claim 10 wherein the first subset of network elements comprises a first network element, and the second subset of network elements comprises a second network element.

SUB B1  
A4  
18. (Amended Once) The method of claim 1 wherein receiving the information and providing the control data are performed by a single network controller.

19. (Amended Once) The method of claim 1 wherein receiving the information and providing the control data are performed by a plurality of network controllers.

SUB B2  
A5  
40. (New) An adaptive feedback system in a data network, the network including a plurality of network elements, at least one network element having a plurality operating parameters associated therewith, said operating parameters being related to at least one control parameter of said element, the feedback system comprising:

one or more processors;

one or more memory, wherein at least one of the processors and memory are adapted to:

receive information relating to characteristics associated with a first subset of the plurality of network elements;

provide at least a portion of said received information to at least one analysis entity for analyzing said portion of received data; and

provide updated control information to at least one of the network elements, wherein the updated control information is in response to the received information and specifies a limit on the operation of the at least one network element.

SUB B1  
41. (New) The adaptive feedback system of claim 40, wherein the updated control information is a committed information rate value.

42. (New) The adaptive feedback system of claim 40, wherein the updated control information is an excess information rate value.

43. (New) The adaptive feedback system of claim 40, wherein the updated control information is a committed burst size value.

44. (New) The adaptive feedback system of claim 40, wherein the updated control information is an excess burst size value.

45. (New) The adaptive feedback system of claim 40, wherein said analysis entity is a policy engine operable to analyze said portion of said information based upon selected guidelines to determine whether a performance of at least a portion of said network conforms with predetermined criteria.

46. (New) The adaptive feedback system of claim 40 further comprising the analysis entity.

CONF SUB 11  
#5 > 47. (New) A computer program product for handling data transmitted within a computer network, the computer program product comprising:  
at least one computer readable medium;  
computer program instructions stored within the at least one computer readable product configured to:

receive information relating to characteristics associated with a first subset of the plurality of network elements;

provide at least a portion of said received information to at least one analysis entity for analyzing said portion of received data; and

provide updated control information to at least one of the network elements, wherein the updated control information is in response to the received information and specifies a limit on the operation of the at least one network element.

600 11 > 48. (New) The computer program product of claim 47, wherein the updated control information is a committed information rate value.

49. (New) The computer program product of claim 47, wherein the updated control information is an excess information rate value.

50. (New) The computer program product of claim 47, wherein the updated control information is a committed burst size value.